

What is claimed is:

1. An organic light-emitting diode display device with a function of converting to be a mirror, comprising:
 - a metal electrode layer for supplying voltage and has a reflecting surface;
 - an organic light-emitting diode layer disposed above the metal electrode layer and driven to emit light by supplying a voltage to the metal electrode layer;
 - a phase transforming film disposed above the organic light-emitting diode layer and having a retardation state of a quarter-wave phase difference that can be converted to have a retardation state with zero phase difference; and
 - a polarizer disposed above the phase transforming film.
2. The organic light-emitting diode display device with a function of converting to be a mirror according to claim 1, wherein the phase transforming film is a twisted nematic cell.
3. The organic light-emitting diode display device with a function of converting to be a mirror according to claim 1, wherein the phase transforming film is in a retardation state with zero phase difference when the organic light-emitting diode layer does not emit light.
4. The organic light-emitting diode display device with a function of converting to be a mirror according to claim 1, wherein the phase transforming film is in a retardation state of a quarter-

wave phase difference when the organic light-emitting diode layer emits light.